



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,868	12/19/2001	Jani Hyvarinen	324-010647-US(PAR)	1041
2512 PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824	7590 02/23/2009		<div>EXAMINER</div> <div>GREY, CHRISTOPHER P</div>	
			<div>ART UNIT</div> <div>2416</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>02/23/2009</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/027,868

Applicant(s)

HYVARINEN ET AL.

Examiner

CHRISTOPHER P. GREY

Art Unit

2416

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11,18-25,27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11,18-25,27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/2/08 has been entered.

Response to Amendment

2. In view of applicant's amendment filed 12/02/08, the status of the application is still pending with respect to claims 1-3, 5-11, 18-25 and 27-28.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 18, 21, 25, 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugirtharaj (US 6678526), hereinafter referred to as Sug.

Regarding claim 1. Sug discloses attaching a mobile station (**fig 1, MS 10**) to a first network (**fig 1, circuit switched network 4, and Col 3 lines 41-50 describes attaching the MS to the circuit switched network**) and transmitting a first data transmission service request (**Col 3 lines 42, set up request**) for communication with a terminal (**Col 4 lines 4-5, called party**);

receiving a message from the first network (**Col 3 lines 52-60, fast busy signal or some other appropriate signal indicating that no channels are available**) at the mobile station (**Col 3 lines 55-60, where the message is sent to the MS 10 in fig 1**) in response to the data transmission service not being providable (**Col 3 lines 52-55, radio channels are unavailable, thus service is not providable**) substantially in accordance with the service request and/or the terminal not being reachable via the first network (**Col 3 lines 52-63, channels are unavailable, thus the terminal is not reachable via the circuit switched network**); and

transmitting a second service request (**Col 3 lines 65-Col 4 lines 2, service request is issued once the subscriber is notified of the congestion condition**) from the mobile station (**fig 1, MS 10**) to a second network (**fig 1, 6, packet switched network**) in response to said message received from the first network (**Col 3 lines 65-**

67, where the subscriber 10 initiates the second request upon being notified of the congestion condition experienced in the circuit switched network).

Regarding claim 2, Sug discloses wherein a primary network is determined in the mobile station as said first network (**fig 1, 4, the circuit switched network is determined to be the primary network**), the primary network determined in the mobile station is checked when a need arises to transfer data between the terminal and the mobile station (**Col 3lines 40-45, setup messages is used to initiate voice call, and the setup message performs the checking**), and the availability of the requested data transmission service and the reachability of the terminal in the primary network (**availability is determined within the circuit switched network according to Col 3 lines 52-55**) are first checked in response to the mobile station being located in the coverage area of the primary network (**Col 3 lines 33-35, the MS is operating in the system 2, thus in the coverage area**).

Regarding claim 18, Sug discloses a transmitter (**fig 1, MS 10**) configured to transmit a first service request (**Col 3 lines 42, set up request**) to a first network (**fig 1, circuit switched network 4, and Col 3 lines 41-50 describes attaching the MS to the circuit switched network**) in response to the apparatus being attached to the first network (**fig 1, circuit switched network 4, and Col 3 lines 41-50 describes attaching the MS to the circuit switched network**) and data transmission (**Col 3 lines 41, voice call**) being desired between the apparatus (**fig 1, MS 10**) and a terminal (**Col 4 lines 4-5, called party**), and wherein the transmitter (**fig 1, MS 10**) is further configured to transmit a second service request (**Col 3 lines 65-Col 4 lines 2, service**

request is issued once the subscriber is notified of the congestion condition) to the second network (**fig 1, 6, packet switched network**) in response to at least one of the data transmission service not being providable (**Col 3 lines 52-55, radio channels are unavailable, thus service is not providable**) in the first network (**fig 1, circuit switched network 4**) substantially in accordance with the first service request (**Col 3 lines 42, set up request**) and the terminal not being reachable (**Col 3 lines 52-63, channels are unavailable, thus the terminal is not reachable via the circuit switched network**) via the first network (**fig 1, circuit switched network 4**).

Regarding claim 21. Sug discloses the apparatus being further configured to check the availability of the requested data transmission service (**Col 3 lines 42, set up request, where the setup request checks the availability of the radio channels**) and the reachability of the terminal (**Col 3 lines 42, set up request, where the outcome of the setup request determines if the called party is reachable**), and to transmit a message to the mobile station (**Col 3 lines 52-60, fast busy signal or some other appropriate signal indicating that no channels are available**) in response to at least one of the data transmission service not being providable (**Col 3 lines 52-60, fast busy signal or some other appropriate signal indicating that no channels are available**) substantially in accordance with the service request and the terminal not being reachable via the first network (**Col 3 lines 52-60, fast busy signal or some other appropriate signal indicating that no channels are available**);

the apparatus being further adapted to cause a second service request to be transmitted from the mobile station (**Col 3 lines 65-Col 4 lines 2, service request is**

issued once the subscriber is notified of the congestion condition) to a second network (**fig 1, 6, packet switched network**), in response to the message (**Col 3 lines 65-Col 4 lines 2, service request is issued once the subscriber is notified of the congestion condition**).

Regarding claim 25. Sug discloses means for transmitting a first service request (**Col 3 lines 42, set up request**) to a first network (**fig 1, circuit switched network 4**) in response to the apparatus being attached to the first network (**Col 3 lines 25-40, where the MS is associated with an HLR and the MS is operating on the system 2, where an association and operation indicate attachment**) and data transmission (**Col 3 lines 41, voice call**) being desired between the apparatus (**fig 1, 10 MS**) and a terminal (**Col 4 lines 4-5, called party**)

receiving a message from the first network (**Col 3 lines 52-60, fast busy signal or some other appropriate signal indicating that no channels are available**) at the mobile station (**Col 3 lines 55-60, where the message is sent to the MS 10 in fig 1**) in response to the data transmission service not being providable (**Col 3 lines 52-55, radio channels are unavailable, thus service is not providable**) substantially in accordance with the service request and/or the terminal not being reachable via the first network (**Col 3 lines 52-63, channels are unavailable, thus the terminal is not reachable via the circuit switched network**); and

transmitting a second service request (**Col 3 lines 65-Col 4 lines 2, service request is issued once the subscriber is notified of the congestion condition**) from

the mobile station (**fig 1, MS 10**) to a second network (**fig 1, 6, packet switched network**) in response to said message received from the first network (**Col 3 lines 65-67, where the subscriber 10 initiates the second request upon being notified of the congestion condition experienced in the circuit switched network**).

Regarding claim 28. Sug discloses computer program code for causing a processor to attach a mobile station (**fig 1, MS 10**) to a first network (**fig 1, circuit switched network 4**, and **Col 3 lines 41-50 describes attaching the MS to the circuit switched network**) and transmitting a first data transmission service request (**Col 3 lines 42, set up request**) for communication with a terminal (**Col 4 lines 4-5, called party**);

receiving a message from the first network (**Col 3 lines 52-60, fast busy signal or some other appropriate signal indicating that no channels are available**) at the mobile station (**Col 3 lines 55-60, where the message is sent to the MS 10 in fig 1**) in response to the data transmission service not being providable (**Col 3 lines 52-55, radio channels are unavailable, thus service is not providable**) substantially in accordance with the service request and/or the terminal not being reachable via the first network (**Col 3 lines 52-63, channels are unavailable, thus the terminal is not reachable via the circuit switched network**); and

transmitting a second service request (**Col 3 lines 65-Col 4 lines 2, service request is issued once the subscriber is notified of the congestion condition**) from the mobile station (**fig 1, MS 10**) to a second network (**fig 1, 6, packet switched**

network) in response to said message received from the first network (**Col 3 lines 65-67, where the subscriber 10 initiates the second request upon being notified of the congestion condition experienced in the circuit switched network).**

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugirtharaj (US 6678526), hereinafter referred to as Sug in view of Roberts et al. (US 7181201), hereinafter referred to as Roberts.

Regarding claim 3. Sug discloses a service request being transmitted to a second network as disclosed in the rejection of claim 1.

Sug does not specifically disclose wherein the mobile station checks whether the terminal belongs to the first network in response to the mobile station being attached to the first network and data transmission being desired between the mobile station and the terminal.

Roberts discloses wherein the mobile station checks whether the terminal belongs to the first network in response to the mobile station being attached to the first network and data transmission being desired between the mobile station and the terminal (**fig 6 Col 4 lines 4-28, wherein the base station system determines the**

location of a called party/terminal, where the called party is attached to the network if the location is found in the database. Roberts also discloses communicating back to the mobile station the result of the location request).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Sug so as to implement to location query of the called party as disclosed by Roberts. The motivation for this combination is to properly and accurately route a call (see abstract).

Regarding claim 19. Sug discloses a service request being transmitted to a second network as disclosed in the rejection of claim 1.

Sug does not specifically disclose wherein the mobile station checks whether the terminal belongs to the first network in response to the mobile station being attached to the first network and data transmission being desired between the mobile station and the terminal.

Roberts discloses wherein the mobile station checks whether the terminal belongs to the first network in response to the mobile station being attached to the first network and data transmission being desired between the mobile station and the terminal **(fig 6 Col 4 lines 4-28, wherein the base station system determines the location of a called party/terminal, where the called party is attached to the network if the location is found in the database. Roberts also discloses communicating back to the mobile station the result of the location request).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Sug so as to implement to location query of the

called party as disclosed by Roberts. The motivation for this combination is to properly and accurately route a call (see abstract).

8. Claims 5-9, 20, 22-24, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugirtharaj (US 6678526), hereinafter referred to as Sug in view of McCanne et al. (US 6901445), hereinafter referred to as McCanne.

Regarding Claim 5. Sug does not specifically disclose said response message comprising a command to transmit the service request to another network.

McCanne discloses a redirection message that indicates a redirection to another service node or network **(Col 16 lines 48-62)**.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Sug such that the LAN is capable of sending a message indicating that the service is not available and where a service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption **(Col 16 lines 45-47)**.

Regarding claim 6. Sug does not specifically disclose the local network determining the network whereto the mobile station should send the service request.

McCanne discloses a first node or network (ARN) determining where to redirect a request message **(Col 6 lines 48-62)**.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Gorsuch and Sainton such that the LAN is capable of sending a message indicating that the service is not available and where a

service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption (**Col 16 lines 45-47**).

Regarding claim 7. Sug discloses wherein the mobile station maintains a list of second networks (the packet switched network is the only network the MS maintains a list of), from which services are sought (ICR service request indicates services are requested).

routing, in response to said message, the second network to which the second service request should be transmitted, and the second service request is transmitted to the second network determined on the basis of the list (Col 3 lines 1-67).

Sug does not specifically disclose determining the second network.

McCanne discloses determining the second network (**Col 6 lines 48-62**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Gorsuch and Sainton such that the LAN is capable of sending a message indicating that the service is not available and where a service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption (**Col 16 lines 45-47**).

Regarding Claim 8. Sug does not specifically disclose wherein a location database of the local network is checked to determine whether the terminal of the called number included in the service request is attached to the local network, and said message is transmitted from the local network to the mobile station in response to the terminal not being attached to the local network.

McCanne discloses the location database of the local network being checked to determine whether the terminal of the called number included in the service request is attached to the local network (Col 17 lines 42-53 and Col 18 lines 44-Col 32).

McCanne discloses the message being transmitted from the local network to the mobile station in response to the terminal not being attached to the local network (Col 19 lines 8-Col 28).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Sug such that the LAN is capable of sending a message indicating that the service is not available and where a service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption (**Col 16 lines 45-47**).

Regarding Claim 9. Sug does not specifically disclose wherein the called number is associated in the location database with a second number, said message comprises the second number, and the service request comprising said second number being transmitted to the public mobile network

McCanne discloses the called number being associated in the location database with a second number (Col 18 lines 30-34), where each service node contains an IP address

McCanne also discloses the message comprising the second number, and the service request comprising the second number being transmitted to the public mobile network (Col 19 lines 8-27), where a redirection message contains a new service node's IP address (second number).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Sug such that the LAN is capable of sending a message indicating that the service is not available and where a service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption (Col 16 lines 45-47).

Regarding claim 20. Sug discloses wherein the mobile station maintains a list of second networks (the packet switched network is the only network the MS maintains a list of), from which services are sought (ICR service request indicates services are requested).

routing, in response to said message, the second network to which the second service request should be transmitted, and the second service request is transmitted to the second network determined on the basis of the list (Col 3 lines 1-67).

Sug does not specifically disclose determining the second network.

McCanne discloses determining the second network (Col 6 lines 48-62).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Gorsuch and Sainton such that the LAN is capable of sending a message indicating that the service is not available and where a service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption (Col 16 lines 45-47).

Regarding Claim 22. Sug does not specifically disclose said response message comprising a command to transmit the service request to another network.

McCanne discloses a redirection message that indicates a redirection to another service node or network **(Col 16 lines 48-62)**.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the teachings of Sug such that the LAN is capable of sending a message indicating that the service is not available and where a service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption **(Col 16 lines 45-47)**.

Regarding claim 23. Sug discloses wherein the apparatus supports wireless local area network communications **(packet switched networks, where LAN is an example of such a network)**.

Regarding claim 24. Sug discloses wherein the apparatus is configured to operate as part of a network element **(fig 1, MS 10)**.

Regarding claim 27. Sug does not specifically disclose the local network determining the network whereto the mobile station should send the service request.

McCanne discloses a first node or network (ARN) determining where to redirect a request message **(Col 6 lines 48-62)**.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Gorsuch and Sainton such that the LAN is capable of sending a message indicating that the service is not available and where a service request should be retransmitted as disclosed by McCanne. The motivation for this modification is to deliver content without interruption **(Col 16 lines 45-47)**.

9. Claims 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugirtharaj (US 6678526), hereinafter referred to as Sug in view Sainton et al. (US RE38,787), hereinafter referred to as Sainton.

Regarding claim 10. Sug discloses wherein the first network is a local network (fig 1, 4, circuit switched network is local) and the second network is a public mobile network (2nd network 6 is a packet switched network)

the mobile station (fig 1, 10, MS), base transceiver stations (fig 1, 22, shows BTS's) comprised by the local network (fig 1, 4, shows local network)

a service request is transmitted from the mobile station to the local network for obtaining the data transmission service (Col 3 lines 1-67, setup request)

the availability of the data transmission service and the reachability of the terminal in the local network are checked, a connection to the terminal via the local network is established in response to the data transmission service being providable substantially in accordance with the service request (Col 3 lines 40-50)

and the connection to the terminal via the public mobile network is released (fig 2, where the routing of the call in 72 indicates that the connection to the SGSN has been disconnected)

Sug does not specifically disclose measuring signal levels and providing a sufficient signal level,

Sainton discloses measuring signal levels and providing a sufficient signal level (Col 16 lines 32-58, where circuit 1 uses the signal strength of a transmission link

such as the strength of the transmission link for the 802.11 or cdma link disclosed in Gorsuch, and dependent on the signal strength, a carrier is selected).

It would have been obvious to one of the ordinary skill in the art to modify the wireless unit as disclosed by Gorsuch to take into consideration signal strengths as disclosed by Sainton. The motivation for this combination is for automatic selection of a carrier.

Regarding Claim 11, Sug does not specifically disclose the mobile station measuring signal levels of the base transceiver stations comprised by the public mobile network in response to the local network providing data transmission service to the mobile station, the service request being transmitted from the mobile station to the public mobile network in response to the signal levels of the measured access points or base transceiver stations of the local network being substantially lower than the signal level of the base transceiver station of the public mobile network, and the connection to the local network being released after establishing a connection to the terminal via the public mobile network.

Sainton discloses the mobile station measuring signal levels of the base transceiver stations comprised by the public mobile network in response to the local network providing data transmission service to the mobile station, the service request being transmitted from the mobile station to the public mobile network in response to the signal levels of the measured access points or base transceiver stations of the local network being substantially lower than the signal level of the base transceiver station of

the public mobile network, and the connection to the local network being released after establishing a connection to the terminal via the public mobile network (**Col 16 lines 32-58, where circuit 1 uses the signal strength of a transmission link such as the strength of the transmission link for the 802.11 or cdma link disclosed in Gorsuch, and dependent on the signal strength, a carrier is selected**).

It would have been obvious to one of the ordinary skill in the art to modify the wireless unit as disclosed by Sug to take into consideration signal strengths as disclosed by Sainton. The motivation for this combination is for automatic selection of a carrier.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER P. GREY whose telephone number is (571)272-3160. The examiner can normally be reached on 10AM-7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moe Aung can be reached on (571)272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2416

/Christopher P Grey/
Examiner, Art Unit 2416